



STATE OF WASHINGTON

REFERENCE GUIDE TO SALMON RECOVERY

**JOINT NATURAL
RESOURCES CABINET**



FEBRUARY 2002

The Joint Natural Resources Cabinet

In May of 1997, Governor Gary Locke and agency heads signed a memorandum agreeing to establish the Joint Natural Resources Cabinet to serve as the "...forum and ongoing institutional framework to promote interagency communication, coordination and policy direction on environmental and natural resource issues."

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The *Statewide Strategy to Recover Salmon: Extinction is Not an Option* (September 1999) emphasizes the importance of salmon recovery at the watershed and regional levels. Four tools to assist people working on salmon recovery in their watersheds and regions, including this *Reference Guide to Salmon Recovery*, have been endorsed for use in Washington by the Joint Natural Resources Cabinet:

Reference Guide to Salmon Recovery (February, 2002) is intended to clarify what salmon recovery means, what is happening, and who is involved at different geographic scales. This information will help people who are interested in salmon recovery and habitat conservation in their watershed better understand the broader context of salmon recovery. It will also identify some of the sources of additional information that are available to them. Preparation of the *Reference Guide* was coordinated by the Governor's Salmon Recovery Office.

Guidance on Watershed Assessment for Salmon (May, 2001) will help watershed groups, state agencies, and others understand what kinds of assessment are needed to support decisions about projects and other actions to protect and restore habitat for salmon. The effectiveness of salmon conservation efforts depends on the kind of information we use to make our decisions. The *Guidance on Watershed Assessment* was developed by an interdisciplinary workgroup of technical specialists under the direction of the Governor's Salmon Recovery Office.

Roadmap for Salmon Habitat Conservation at the Watershed Level (February, 2002) picks up where the *Guidance on Watershed Assessment* ends. The *Roadmap* will help local groups take key steps needed for salmon habitat conservation in their watershed and relate their work to regional salmon recovery planning. It provides specific information on steps needed to conserve salmon habitat in a watershed. Information on how these steps can be taken is provided with the understanding that local groups can and will need to tailor these steps for their watershed. The Governor's Salmon Recovery Office coordinated development of the *Roadmap*.

Regional Recovery Plan Model (February, 2002) identifies essential elements of a regional salmon recovery plan. It provides guidance to regional salmon recovery planning organizations for coordinating development of regional salmon recovery plans. A salmon recovery plan is a comprehensive document that defines the actions needed to recover one or more salmon species or populations within a specific region. The Washington Department of Fish and Wildlife collaborated with the Governor's Salmon Recovery Office and others to develop the *Model* as part of a new program established by the Legislature to provide funds for regional salmon recovery plans.

TABLE OF CONTENTS

Introduction 1

What is Salmon Recovery? 1

How is Salmon Recovery Different from ESA Compliance? 2

What is Going on in Salmon Recovery? 4

Conclusion 13

Appendix

 Resources and Contacts in Salmon Recovery A-1

REFERENCE GUIDE TO SALMON RECOVERY

INTRODUCTION

In 1997, Governor Gary Locke convened 13 state agency heads to establish the Joint Natural Resources Cabinet. The Cabinet's role is to promote interagency communication, coordination and policy direction on environmental and natural resources issues. In 1999, the Cabinet developed the "Statewide Strategy to Recover Salmon: Extinction is Not an Option" to outline the vision, goals and objectives necessary to keep salmon from becoming extinct in Washington.

The Strategy identified four main areas of emphasis, referred to as the "four Hs" – habitat, harvest, hatcheries and hydropower – and stressed that recovery efforts need to be appropriately integrated at the federal, state, regional and watershed levels.

Salmon recovery offers an opportunity to link efforts that seem disconnected and unrelated. For instance, water and lands have generally been managed separately. Removing native vegetation and increasing hard surfaces such as roads and parking lots has a direct impact on the amount, timing and quality of surface and groundwater supplies. In turn, health of salmon populations is substantially affected by these impacts on water.

While salmon recovery efforts are taking place in nearly every part of Washington, federal, state, tribal and local governments recognize that the best solutions stem from collaborative and coordinated approaches implemented through local initiatives for regions, watersheds and stream reaches.

Local initiatives have been established in many watersheds to address stream degradation, declining salmon populations, and increased demands for using water and land. Regional groups have been established or are being organized to coordinate salmon recovery activities across most of the state. Most of these watershed and regional initiatives to recover salmon still are defining their scope and intentions in the face of competition with other pressing social and economic needs.

Effective recovery of salmon populations and their habitat requires a high degree of coordination and planning. Salmon recovery efforts are planned or are underway at a variety of geographic scales and levels of government. This document will help clarify what salmon recovery means, what is happening in salmon recovery, and who's involved in salmon recovery. A companion document, the "Roadmap for Salmon Habitat Conservation at the Watershed Level," describes how these efforts can inter-relate and offers questions that should be addressed.

"Salmon" refers to all species of salmon, steelhead, trout and char native to Washington.

A "watershed" is the area of land that water flows across or under on its way to a river, lake or ocean. It includes all surface fresh water and adjacent estuaries and marine areas. A framework for watershed boundaries is provided through the state's designation of 62 Water Resource Inventory Areas (WRIAs).

"Habitat conservation" includes protecting, maintaining and restoring habitat to support the needs of salmon.

WHAT IS SALMON RECOVERY?

Since the late 19th century, many populations of naturally-spawning salmon have suffered a severe decline. During the 1990s, this decline in populations of several salmon species resulted in numerous listings as threatened or endangered with extinction under the Endangered Species Act.

The vision of salmon recovery adopted in the 1999 "Statewide Strategy to Recover Salmon" is to

“restore salmon, steelhead and trout populations to healthy, harvestable levels and improve habitat on which fish rely.”

For salmon to continue to exist and recover requires sustainable salmon population size and productivity, genetic diversity and healthy functioning habitats. Functioning habitats for salmon spawning, rearing and migration include:

- Adequate amounts of cool, clean and well-oxygenated freshwater;
- Fully-functioning riparian corridors with large woody debris and other habitat-forming structures in the stream channel;
- High quality estuarine, marine and nearshore habitats;
- Adequate supplies of food and cover, and refuge from predators;
- Unimpeded access to and from freshwater habitat.

The Governor’s Salmon Recovery Office, in consultation with Washington Department of Fish and Wildlife, National Marine Fisheries Service and US Fish and Wildlife Service, has identified seven regions in the state to foster partnerships among governments, organizations and landowners with a stake in recovering salmon. The regions are based on recovery needs of distinct groups of salmon populations listed under the ESA (roughly equivalent to Evolutionarily Significant Units, or ESUs). (see map on p.3)

Salmon recovery efforts need to:

- Focus on effects of human activities and actions in terms of the “four Hs” – habitat, harvest, hatcheries and hydropower;
- Incorporate social and economic considerations into goals, objectives and actions;
- Include active citizen participation in governments’ efforts at watershed and regional levels;
- Use sound ecological principles – based on the best available science; and
- Include long-term commitments to monitoring, adaptability and accountability for results.

HOW IS SALMON RECOVERY DIFFERENT FROM ESA COMPLIANCE?

Congress enacted the Endangered Species Act (ESA) in 1973 to:

“provide a means whereby the ecosystems upon which endangered species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth in the Act.”

Species can be determined to be either threatened or endangered. The term endangered refers to any species that is in danger of extinction throughout all or a significant portion of its range. Threatened species are those determined likely to become endangered within the foreseeable future.

A decision to list as threatened or endangered must be made “solely on the basis of the best scientific and commercial data available.” Also, state and local conservation programs may be considered during the federal decision-making process on whether to list species. Economic impacts cannot be considered in the listing decision. However, economic impacts may be taken into account in designating critical habitat, as part of regulatory processes to protect listed species, and in recovery planning.

The goal under the ESA is successful recovery of threatened or endangered species to the point where they no longer need the protection of the Act. The goal of salmon recovery is to restore salmon populations to healthy and harvestable levels. This includes many efforts being pursued by federal, state, tribal, and local governments and private entities to achieve ESA compliance. While these compliance efforts are individually and collectively critical to salmon recovery, they are not comprehensive and are not likely to be sufficient to achieve the goal of healthy and harvestable salmon populations.

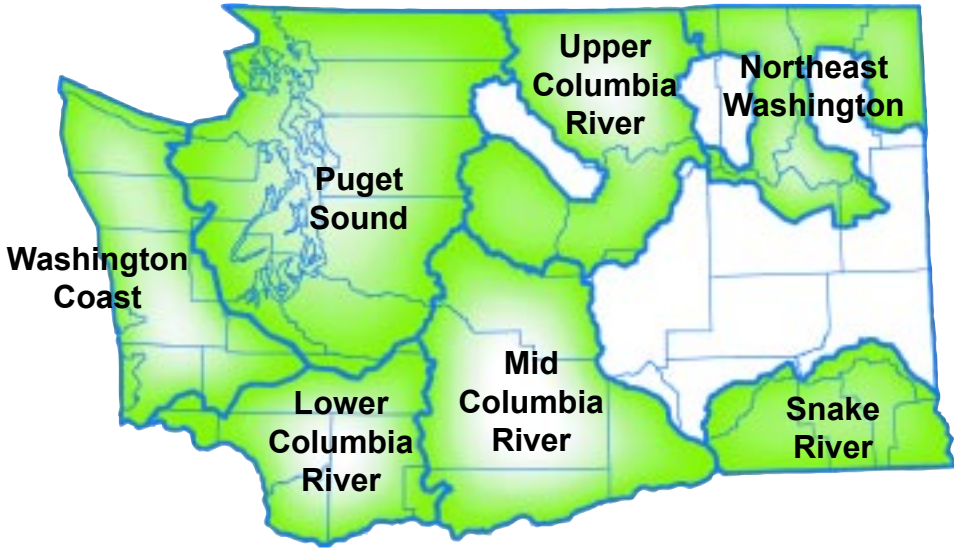
To better understand the distinction between ESA compliance efforts and salmon recovery, we need to look at the ESA and its implementing regulations and how they affect state, federal, tribal and local programs and actions and private activities. (Also see pages 5-6 for more details on federal ESA regulations.)

Depending upon the species at risk, either the National Marine Fisheries Service (coho, chinook, chum, sockeye and steelhead) or the U.S. Fish and Wildlife Service (bull trout and cutthroat) is the administering agency of the Endangered Species Act and its implementing regulations. Under the ESA, both NMFS and USFWS have three basic missions:

1. Identify species needing protection and the means necessary to protect and recover those species;
2. Prevent and enforce against harm to listed species and destruction of their habitats; and
3. Develop recovery plans for listed species.

A decision to list species triggers key regulatory mechanisms of the Endangered Species Act, which include prohibition against taking the listed species, procedures for getting exceptions to allow take, and enforcement of the requirements of the Act. To date, NMFS and USFWS have listed 15 salmon populations, or stocks, in Washington as threatened or endangered. All these stocks are under ESA protection.

There are several ways that ESA regulations to protect listed species may affect federal, state, tribal and local governments and private citizens.

Endangered Species Act Listings in Salmon Recovery Regions	
	
Washington Coast <ul style="list-style-type: none"> • Bull Trout • Lake Ozette Sockeye 	Upper Columbia River <ul style="list-style-type: none"> • Bull Trout • Chinook • Steelhead
Lower Columbia River <ul style="list-style-type: none"> • Bull Trout • Chinook • Chum • Steelhead 	Middle Columbia River <ul style="list-style-type: none"> • Bull Trout • Steelhead
Puget Sound <ul style="list-style-type: none"> • Bull Trout • Chinook • Chum 	Northeast Washington <ul style="list-style-type: none"> • Bull Trout
	Snake River <ul style="list-style-type: none"> • Bull Trout • Chinook • Sockeye • Steelhead

If a federal action, such as a federal permit or grant, may potentially impact a listed species, the federal agency proposing the action is required to consult with the responsible ESA agency. The consultation determines whether and to what extent the action will adversely impact the species. When it is determined there will be adverse impacts, the action is either prohibited or modified so that the species and its habitat are conserved and the species is not in further jeopardy of extinction. The types of actions that can be affected range from the amount of water made available to irrigators, to the way Columbia River hydropower systems are operated, to the quantity of timber harvested from federal forests.

Litigation to enforce the requirements of the ESA can be initiated by the federal government or by citizens. For example, an irrigation district in southwest Oregon was forced to remove an irrigation dam to protect a listed fish species. Violations of the ESA can also result in both civil and criminal penalties.

State, tribal, local and private entities concerned about potential impacts from their activities on ESA-listed salmon and salmon habitat that they may not be able to avoid have several options available to them to address any adverse impacts. These options provide procedures for complying with ESA and include the following:

- **Qualifying for coverage under Section 7 consultation.** In situations where state or local actions include a federal nexus (i.e., funded or approved by a federal agency) and commitments are made to implementing approved conservation measures, it is possible to comply with ESA by obtaining coverage under an Incidental Take Statement as part of a Section 7 consultation by the responsible federal agencies. For example, many state transportation projects that are federally funded are complying with ESA by implementing conservation measures and following procedures covered in federal agencies' Section 7 consultations.
- **Modifying programs to qualify for recognition under Section 4(d) rules.** Certain types of programs and activities can be modified to implement measures to conserve listed salmon. Such conservation

measures may qualify the program for limits on take prohibition that are included in ESA Section 4(d) rules adopted by NMFS or USFWS to protect threatened species (see p. 5 - 6 for more details). For example, the harvest management elements of the Summer Chum Salmon Conservation Initiative for Hood Canal and the Strait of Juan de Fuca has received recognition from NMFS under the 4(d) rules adopted in July 1999.

- **Developing a Habitat Conservation Plan (HCP) and obtaining an Incidental Take Permit under Section 10 of the ESA.** Private landowners, public agencies and others have developed HCPs which allow limited impacts on specific listed species (i.e., incidental take) while instituting conservation measures to ensure that populations of one species are not jeopardized by the permitted activities. For example, the Mid-Columbia Public Utility Districts have spent millions of dollars in habitat improvements and dam modifications to conserve listed fish species and to develop an HCP, and the Washington Department of Natural Resources (DNR) has an approved HCP for 1.6 million acres of state forest land focused primarily on habitat conservation strategies for ESA listed species.

All of these ESA compliance options and procedures provide for identification and implementation of measures that will conserve listed salmon and their habitat. However, with the exception of federal agency responsibility to consult under Section 7, these procedures are not automatically required, but may be used to comply with ESA. Individually and collectively, actions to comply with ESA contribute to salmon recovery, but they are not likely to be sufficient enough to achieve recovery of listed species to healthy and harvestable population levels. Recovery requires a more comprehensive and coordinated set of actions that address factors contributing to the decline of salmon and provide reasonable assurance of achieving healthy salmon populations.

WHAT IS GOING ON IN SALMON RECOVERY?

Current federal, state, tribal, regional and local efforts address the decline in salmon populations and salmon habitat. This document discusses

efforts at the different geographic scales at which habitat restoration and protection are being addressed. It also outlines other salmon recovery efforts related to hydropower, harvest and hatcheries and related efforts under the Clean Water Act. One of the challenges in salmon recovery is to effectively coordinate across these different scales of effort.

The following describes briefly some of the programs or policies involved in salmon recovery efforts. (Refer to the Appendix for information on contacting various agencies and organizations.)

Salmon Recovery at the Coastwide Scale

Federal efforts are underway to address salmon recovery and ESA listings of Pacific salmon in Washington, Oregon, California and Idaho.

1. Federal salmon recovery planning efforts

After the decision to list a species, NMFS or USFWS must develop and implement a recovery plan for conservation and survival of the listed species. Although NMFS or USFWS is ultimately responsible for species recovery plans, each agency is encouraging broad partnerships with state, tribal and local governments and other interests to develop recovery plans.

These federal agencies are charged with quantifying goals and approving plans for salmon recovery, and are responsible for implementing the ESA to return threatened and endangered species to the point where they no longer need ESA protections. Criteria for delisting species describe what will be required to remove salmon from the endangered species list. Meeting the criteria to delist species under the ESA is achieved through regulatory and voluntary mechanisms.

- *NMFS recovery goals and plans.* In September 2000, NMFS initiated recovery planning efforts for several Evolutionarily Significant Units (ESUs) in the Puget Sound and Lower Columbia Salmon Recovery Regions. Technical Recovery Teams (TRTs) have been established for the Puget Sound and Lower Columbia Regions, and for the Interior Columbia River Basin including the Upper and Middle Columbia River and Snake River Salmon Recovery Regions. TRTs are comprised of recognized technical specialists in disciplines related to salmon recovery. NMFS is actively partnering with state, tribal,

and local interests to define how the TRTs will interact with other regional recovery initiatives. Recovery planning will be accomplished in two inter-related phases.

~Phase I is largely a technical phase which includes identification of salmon populations and development of measurable salmon recovery goals. These goals will describe the size, diversity and productivity of salmon populations and habitat characteristics that provide assurance that the species will persist into the future.

~Phase II involves an interaction between technical and policy issues. This relies on interaction by the TRTs with other federal, state, tribal and local partners. It identifies strategies, actions and a timeframe for comprehensive regional recovery plans that include salmon habitat conservation at the watershed level.

Information from both phases is needed to develop habitat conservation strategies that together with strategies for harvest, hatcheries and hydropower at the regional level, can help achieve recovery goals for watersheds and ESUs.

- *USFWS recovery planning.* USFWS has ESA responsibility for bull trout and cutthroat trout. Recovery planning is underway for bull trout which were listed as threatened in much of the Columbia River Basin in June 1998 and in much of western Washington in November 1999. Listing determinations by USFWS for cutthroat trout are due to be made by June 2002.

2. Federal ESA compliance efforts

Protective regulations. Both NMFS and USFWS have adopted protective regulations under Section 4(d) of the Endangered Species Act that apply to species listed as threatened, but not those listed as endangered. Prohibiting take of endangered species goes into effect as soon as the species is listed, without any additional rules.

The federal agencies have taken different approaches with their protective regulations. USFWS imposes its protective regulations for threatened species at the time of listing. So for

bull trout, the take prohibition has been in effect since the listing, and exceptions would be provided only if and when the USFWS 4(d) rule is amended by a special rule. NMFS, on the other hand, adopts protective regulations generally within one year of a listing. NMFS protective rules define what types of state, local, private and tribal actions will have a high likelihood of affecting salmon.

The ESA and the protective regulations under Section 4(d) define and prohibit “take” of listed species. Take of listed species is defined by the Act as “to harass, harm, pursue, ..” and may include direct take through fishing or significant habitat modification or degradation. In addition, under NMFS 4(d) rules, exceptions or “limits on take prohibitions” can protect entities (e.g., state, tribal and private) from potential liability under the Act for otherwise lawful activities that may incidentally take listed salmon. NMFS 4(d) rules outline conditions to qualify for several specific limits on take prohibitions. Generally, to qualify, covered actions must be implemented in a way that contributes to conservation of listed species.

Some key examples of such limits are:

- Limit # 10, Road Maintenance, provides protection from ESA liability for routine road maintenance activities that NMFS determines are consistent with conservation of salmon habitat. The Tri-County Salmon Recovery Initiative has submitted proposed road maintenance activities and related habitat conservation measures for central Puget Sound to NMFS for approval.
- Limit # 12, Urban Development, is available for municipal, residential, commercial and industrial developments that occur under city, county or regional ordinances or plans that adequately protect listed salmon.

Take authorizations. Both NMFS and USFWS administer ESA compliance programs that can allow direct or indirect incidental take of listed species. Take can be authorized under both Section 7 consultation provisions which apply to federal actions and Section 10 provisions for Habitat Conservation Plans and Incidental Take Permits which apply to state, local or private entities.

- Under ESA Section 7 consultation, federal programs to fund or approve activities may receive authorization for incidental take,

which may also cover related actions by a non-federal entity. Under this section, if a proposed federal action might impact listed salmon, federal agencies are required to consult with NMFS and/or USFWS to determine if the action will jeopardize the species. This consultation requirement can potentially affect many state and local activities that are either delegated, funded or authorized by a federal agency, such as transportation projects, shoreline management guidelines in coastal areas, stormwater management, floodplain management, and funding of protection and restoration projects.

- Under Section 10, state and local governments and private entities can develop Habitat Conservation Plans (HCPs) that commit to implement conservation measures to protect listed species while allowing development or other lawful activities to proceed, provided the impacts to listed species are minimized and mitigated. HCPs can be developed for multiple species, single species, geographic areas and/or for long-term projects, such as transportation projects. Once an HCP is approved by USFWS and/or NMFS, the entity developing the HCP receives an Incidental Take Permit that provides a framework for long-term certainty of compliance with the Endangered Species Act.

Review of U.S. Army Corps of Engineers’ permits. Many habitat restoration projects require permits from the Corps of Engineers, and the Section 7 consultation process for these permits has resulted in delays for some projects. The Corps of Engineers is developing a programmatic Section 7 consultation for habitat restoration projects. The programmatic consultation will streamline the National Marine Fisheries Service’s review of the Corps’ permits, and result in more timely permits for many in-stream restoration projects.

3. Other salmon recovery efforts conducted by federal agencies

Federal land management agencies (e.g., Forest Service, Bureau of Land Management, Bureau of Reclamation) have developed and are operating under regional aquatic conservation strategies such as the Northwest Forest Plan and ESA compliance requirements that apply to

federal agencies (i.e., Section 7 consultation). The federal regional strategies identify priority watersheds, define restoration and conservation objectives, and provide standards and guidelines for federal land and water management activities.

In addition, the “Unified Federal Policy for a Watershed Approach to Federal Land and Resource Management” was adopted to protect water quality and aquatic ecosystem health. The policy calls for reducing polluted runoff, improving natural resources stewardship, and increasing public involvement in watershed management on federal lands. It calls on federal agencies to work together and with states, tribes, local governments, private landowners, and other interested parties to take a watershed approach to federal land and resource management. Such watershed planning will include assessment and monitoring of watershed conditions, and identifying priority watersheds to focus budget and other resources.

Salmon Recovery at the State Scale

1. Statewide Strategy to Recover Salmon

The Joint Natural Resources Cabinet’s “Statewide Strategy to Recover Salmon: Extinction is Not an Option” sets the context and articulates the long-term mission, goals and objectives for salmon recovery. It also identifies statewide initiatives related to the main causes limiting recovery of specific salmon populations – the so-called “four Hs”: habitat, harvest, hatcheries and hydropower.

The Statewide Strategy recognizes that regional, watershed and site-specific efforts are appropriate levels for addressing limiting factors caused by human activities and for designing salmon habitat protection and restoration programs. While certain actions are necessarily carried out statewide or region-wide, most of the habitat protection and restoration initiatives are best carried out at the watershed level in partnership with local, tribal, state and federal agencies and private entities.

State Action Plans to implement the Statewide Strategy provide information on state agency actions conducted in the 1999-2001 biennium as well as actions to be taken in 2001-2003. A statewide monitoring strategy and action plan also is being developed that will assist state, regional and local recovery efforts develop their own plans

to track progress in implementing strategies and actions and to measure results.

2. Salmon Recovery Funding Board

The Salmon Recovery Funding Board (SRFB), created in 1999, is responsible for funding salmon habitat projects and activities that best reflect local priorities, use the best available science and provide the greatest benefits to salmon. The SRFB has provided local groups, referred to as Lead Entities, with guidelines and criteria for developing habitat acquisition and restoration strategies and for project identification and priority ranking. In addition, the SRFB has adopted a set of policies that will be used to evaluate the strategies and project priorities of local groups. The Board encourages the use of watershed assessments, such as those suggested in the “Guidance on Watershed Assessment for Salmon” document developed by the Joint Natural Resources Cabinet.

3. Project Permit Streamlining

Land development, transportation and other types of projects (including many habitat restoration projects) that involve work in or near streams, estuaries and marine nearshore waters create inherent risks to salmon habitat. Because of these risks, most projects that affect aquatic resources are regulated through a variety of federal, state and local permit programs. There are efforts underway to develop consistent standards, minimize project delays and eliminate duplicative processes, including:

- *Aquatic Habitat Guidelines.* These are a set of specific management guidelines for consistent application of good science and management practices for design, construction, and operation of projects in, near, or affecting aquatic systems.
- *Permit Process Streamlining.* Legislation passed in 1998 (Second Substitute House Bill 2879) laid the foundation for improving permit processes for habitat protection and restoration projects. It also authorized approaches to streamline state and local permit requirements for those types of projects. More recently, the 2001 Legislature passed Engrossed Senate Bill 6188 to streamline the environmental permit process for transportation projects. The Transportation Permit Efficiency and Accountability Committee was established to integrate environmental standards and to

develop a one-stop general and programmatic permit decision-making process for transportation projects. This committee will also be looking at how watershed-based approaches to project mitigation can support watershed priorities, including fish habitat, as well as supporting more streamlined permit procedures.

Salmon Recovery at the Regional Scale

Regional salmon recovery plans will build upon watershed plans and data in order to address all factors necessary for salmon recovery within the region. The general elements to be covered by watershed plans that can then be incorporated into regional plans are outlined in the "Roadmap for Salmon Habitat Conservation at the Watershed Level" (February 2002). The number of fish caught both commercially and recreationally, as well as hatchery management, must be coordinated with habitat protection and restoration. Efforts coordinated at the regional level are likely to be more efficient and effective and correspond to ESUs identified by NMFS in listing salmon under the Endangered Species Act.

In 2001, the Legislature provided state funds for coordination and development of regional salmon recovery plans. WDFW is administering this grant program for regional entities engaged in salmon recovery planning. The Legislature also required WDFW to develop a "Regional Recovery Plan Model" for use by regional entities.

There are several regional salmon recovery efforts underway:

- The Shared Strategy for Recovery of Salmon in Puget Sound (Shared Strategy) encompasses all the watersheds surrounding Puget Sound, based on the ESU for chinook, and including the ESU for Hood Canal chum. The Shared Strategy identifies habitat conservation work at the watershed level as a fundamental building block for the regional recovery plan and its successful implementation. This work includes restoration projects and protection programs.
- An additional effort in central Puget Sound is the Tri-County Salmon Recovery Initiative. This voluntary initiative was created by the three most populous and urban counties in Washington. It includes King, Pierce and Snohomish county governments, tribal governments, and an array of cities, towns, business leaders and environmentalists. This alliance faces the special problems of urban population growth, land use planning, and protection of streams and fish in an increasingly developed environment. This three-county alliance is working with NMFS and USFWS to determine how local programs can meet the needs of salmon, and the need for predictability in reconciling the restoration and protection of salmon habitat with continued population growth and economic expansion. The Tri-County Initiative has both a short-range component and a long-range component. The long-range component is founded on watershed conservation strategies in each of the Water Resources Inventory Areas (WRIAs) in the three counties, with the intention of incorporating these efforts into the Shared Strategy.
- The Lower Columbia Fish Recovery Board, a partnership of five counties in southwest Washington, was created by the Legislature in 1998. The region encompasses five WRIAs from the White Salmon River to the mouth of the Columbia River. The Board is working with local governments, tribes and a technical advisory committee to coordinate state and local salmon recovery and watershed planning within the Lower Columbia region. Like the Tri-County Initiative, the Lower Columbia Fish Recovery Board's long-range efforts will rely on implementation of watershed conservation strategies.
- The Upper Columbia Salmon Recovery Board is a partnership of Chelan, Douglas and Okanogan counties, the Yakama Nation, the Colville Confederated Tribes, and state and federal agencies, and includes seven WRIAs. Its mission is to restore healthy runs of fish through collaborative efforts, combined resources, and wise resource management in the Upper Columbia Region. It is supported by a regional technical team that has developed priorities for projects to be submitted to the Salmon Recovery Funding Board for financial support.
- The Snake River Salmon Recovery Region Committee is a partnership of Walla Walla,

Garfield, Asotin, Columbia, and parts of Franklin and Whitman counties, the Confederated Tribes of the Umatilla Indian Reservation and Nez Perce Tribe, and state and federal agencies. Within this region, a Habitat Conservation Plan is being developed for the Walla Walla watershed to address water supply and fish habitat needs.

Salmon Recovery at the Watershed Scale

Some factors affecting salmon recovery, such as harvest management, can be addressed at the regional scale. Habitat issues are best addressed at the watershed level. With this understanding, the state has made major policy and financial commitments to watershed planning and salmon habitat restoration and protection at the watershed level, including:

- The 1998 Watershed Planning Act (commonly called “2514” after the legislative bill number that created it) provides for planning at the watershed level. As of June 2001, governments in 40 WRIAs have created 29 voluntary planning efforts called Watershed Planning Units.

Planning Units provide a framework for working partnerships that focus on the natural boundaries of watersheds rather than the human-made boundaries of counties, cities, and other jurisdictions.

For one or more WRIAs, the county government, the largest town or city, together with the largest water purveyor, have the option to convene a process that can bring together tribal and local governments and private citizens. The Watershed Planning Units that are formed decide what actions need to be taken in their watershed to provide adequate water for fish and other water users. In addition to planning required to address water quantity for people and fish, most convening local governments and Planning Units have chosen to also address water quality and fish habitat issues affecting their watershed. Substantive decisions will be made by state and local agencies based on the outcomes of these watershed planning efforts.



Map of Water Resource Inventory Areas

The Watershed Planning Act requires that Planning Units rely upon habitat restoration activities being developed under the Salmon Recovery Planning Act as the primary non-regulatory component for fish habitat in the watershed plan. Other habitat conservation issues, such as those related to land and water management, will need to be addressed by the Planning Unit.

A comprehensive approach to salmon habitat conservation for a watershed as outlined in the “Roadmap for Salmon Habitat Conservation at the Watershed Level” (February 2002), can be supported by the state as the habitat component of a salmon recovery plan.

- The 1998 Salmon Recovery Planning Act (known by many as “2496” after its legislative bill number) focuses on the need for coordination of local projects to preserve and restore habitat conditions necessary for salmon recovery. Lead Entities spearhead these local efforts. Some of the Lead Entities are the same as the watershed planning groups created through the Watershed Planning Act, but in other areas watershed planning and salmon recovery efforts remain separate. To date, 25 Lead Entities covering all or part of 45 WRIAs have been created.

With technical and financial help from the Washington Department of Fish and Wildlife and the Conservation Commission, Lead Entities examine which factors in local streams limit recovery of wild salmon, develop and prioritize lists of science-based projects to address those factors, and submit project proposals to the state’s Salmon Recovery Funding Board. Many salmon recovery Lead Entities are involved in habitat assessments and developing strategies for habitat preservation and restoration projects in their watersheds. Those assessments and strategies can also contribute to the habitat element of a salmon recovery plan.

- The Conservation Commission provides valuable information to Lead Entities. The Salmon Recovery Planning Act directed the Commission, in consultation with local, state and federal governments and tribes, to

identify limiting factors for salmon for each of the WRIAs supporting salmon populations and their sub-watersheds. The Commission has completed limiting factors analyses in 36 watersheds, offering the first comprehensive picture of the specific issues facing salmon in each watershed. This information is key to watershed assessment and determining actions needed to conserve salmon habitat.

- Regional Fisheries Enhancement Groups (RFEGs) have been engaged in salmon recovery since 1990. There are now 14 RFEGs for specific geographic regions, based upon watersheds and covering all of Washington’s salmon habitat. These organizations are community and volunteer-based and were established by legislation (Chapter 77.95 RCW). They are supported and administered by the Washington Department of Fish and Wildlife in cooperation with an RFEG Advisory Board.

RFEGs develop and implement salmon recovery projects with dedicated funding from USFWS and WDFW and from other funding sources. Many RFEGs are working with Salmon Recovery Planning Act Lead Entities to identify and develop high priority habitat projects for funding by the Salmon Recovery Funding Board. In addition to habitat protection and restoration projects, RFEGs have successfully implemented projects for salmon production and supplementation, stream nutrient enrichment, education and outreach, watershed stewardship, and monitoring. RFEGs have been and continue to be a source of community involvement in salmon recovery.

- In May 2001, the Joint Natural Resources Cabinet issued the “Guidance on Watershed Assessment for Salmon.” The document helps local groups and funding entities understand what kinds of assessments (e.g., Limiting Factors Analyses) are needed to support the types of decisions and actions needed to protect and restore salmon habitat.

Salmon Recovery at Local Government Scale

To effectively respond to the threat to salmon, land use issues affecting salmon habitat must be addressed. There are federal, state and local laws and regulations that apply to land use activities. Several of these laws establish a shared responsibility for land use between local governments and between the state and local governments.

The primary tools for regulating land development are developed under the Shoreline Management Act (SMA) and the Growth Management Act (GMA), complemented by related requirements in the State Environmental Policy Act (SEPA). While there is a wide range of governmental entities and authorities with a role in land use and environmental decisions, counties and cities have the key land use responsibilities.

The GMA was initially enacted in 1990. The GMA calls for the fastest-growing counties, and the cities within them, to plan extensively for land and water use. There are 29 counties and 215 cities – representing 95 percent of the state’s population – planning under the GMA. There are, however, two provisions of GMA that apply to **all** counties and cities: 1) the requirement to identify and conserve natural resources lands (mines, farms and forests); and 2) the requirement to designate and protect critical areas through Critical Areas Ordinances. These areas include wetlands, fish and wildlife habitats, frequently flooded areas, geologically hazardous areas and aquifer recharge areas.

The Shoreline Management Act, adopted in 1971, established a cooperative partnership between state and local governments in managing shorelines of all water bodies, except for smaller streams and lakes. Cities and counties develop shoreline master programs to regulate shoreline development in accordance with the Shoreline Management Act and state guidelines. In 1995, legislation passed requiring integration of SMA and GMA and update of the shoreline guidelines. Updated guidelines were adopted by the Department of Ecology in November 2000. Acting on an appeal from business, local governments and others, the Shorelines Hearings Board has

remanded the adopted rules to the Department of Ecology. The parties to this case have appealed the Shorelines Hearings Board’s decision to protect their legal standing. At the same time, the parties have agreed to attempt to negotiate an agreement on new shoreline guidelines.

On a five-year cycle, counties and cities are required by the Growth Management Act to review and, if needed, amend their comprehensive plans and development regulations to conform to requirements of the GMA and the SMA. In addition, all Critical Areas Ordinances must be developed and reviewed using the best available science and must give special consideration to protection and conservation of salmon. The first review and revision of plans and regulations must be completed by September 1, 2002. These revisions are subject to the public review and appeals procedures provided by the GMA and SMA.

Over the next several years, cities and counties will be updating their shoreline master programs, growth management land use plans, Critical Areas Ordinances and other development regulations, and their stormwater management programs. These efforts provide an excellent opportunity for local governments to upgrade their plans, programs and regulations to provide a higher level of protection of natural resources, including salmon habitat. This in turn can help with the recovery of salmon and with removing or reducing uncertainties local governments and private landowners face under the ESA. Financial and technical assistance may be available for these local government updates.

Salmon Recovery Through Harvest and Hatchery Initiatives

The Washington Department of Fish and Wildlife and the Treaty Tribes are co-managers of Washington’s fishery resources and are preparing comprehensive fish management plans for salmon species. These plans are developed within a complex institutional context that includes the Pacific Salmon Treaty with Canada and federal court jurisdiction over many fishing issues. The plans focus primarily on harvest and hatcheries issues, but because of the close linkages between harvest, hatcheries and habitat conditions, several of the plans also address

habitat issues in watersheds affected by the fishery management plans. Comprehensive plans have been developed for coho, Puget Sound chinook and Hood Canal/Strait of Juan de Fuca summer chum salmon.

The state and the tribes have extensive annual processes for regulating commercial and recreational fishing. As part of a congressionally authorized hatchery reform initiative, WDFW and tribes are working with the Hatchery Scientific Review Group to evaluate the operation of existing hatcheries and recommend changes. They also are developing Fishery Management and Evaluation Plans and Hatchery Genetic Management Plans. These plans identify improvements that need to be implemented in fishing regulations and at existing hatcheries and provide information required by NMFS to qualify for limits on take prohibitions under Section 4(d) rules for threatened species, or through Section 7 or 10 procedures if endangered salmon are impacted.

These harvest and hatchery efforts for salmon recovery often operate at coastwide, state and regional scales. However, these efforts also are implemented within watersheds. For example, RFEs around the state have been active in using a variety of fish supplementation projects to support salmon recovery. Coordination with habitat conservation efforts is important to ensure that the role of salmon in the health of the watershed ecosystem is taken into account.

Salmon Recovery Through Hydropower Initiatives

Hydropower facilities fall into two general groups – federal (operated by Corps of Engineers or the Bureau of Reclamation) and non-federal (generally operated by private developers, investor-owned utilities, municipal utilities, or public utility districts).

Federal hydropower facilities—

Modifying and mitigating the effects of the Columbia-Snake River Basin Hydropower system on salmon populations is being addressed primarily through a NMFS Section 7 Biological Opinion, working with the Bonneville Power Administration, Corps of Engineers, Bureau of Reclamation, Federal Energy Regulatory

Commission and the Northwest Power Planning Council (NWPPC). The state, working through the NWPPC and the Columbia Basin Fish and Wildlife Authority (CBFWA), in consultation with NMFS, influences the development of strategies to be implemented and funded by federal government agencies. Columbia Basin tribes also are active in CBFWA and are influencing strategies and funding to mitigate effects of the hydropower system.

The NWPPC, a regional body consisting of two members each from Washington, Oregon, Idaho and Montana, was created under the Northwest Power Act of 1980. It supports fish recovery efforts in the Columbia-Snake River system that mitigate the effects of the hydropower system. The Council recently revised its Fish and Wildlife Program to emphasize sub-basin (i.e., watershed) assessment and planning throughout the Columbia River Basin and to ensure effective use of Bonneville Power Administration funding for habitat preservation and restoration. The scope of the Council's program is broader than salmon recovery and includes actions to also benefit other fish and wildlife.

Non-federal hydropower facilities—

Modifications of the operations of many hydropower projects are being investigated and pursued. The purpose of these modifications is to implement salmon protection, mitigation and enhancement measures. With more than 160 hydropower projects federally licensed or being considered for licenses in the state, and with 75% of energy coming from hydropower projects, the task is daunting. Several of these projects are engaged in proceedings to renew licenses, which provide an avenue to implement improvements at hydropower facilities. For example, passage at hydropower dams has been improved by a combination of less disruptive water release schedules, structural changes at dams and management actions. Several hydropower operators (e.g., Mid-Columbia Public Utility Districts) have opted to develop HCPs under Section 10 of ESA.

State agencies, tribes, and other interests play an important role in negotiation and conditioning of hydropower licenses and HCPs.

Salmon Recovery Through the Clean Water Act

The objective of the Clean Water Act is to “restore and maintain the chemical, physical and biological integrity of the nation’s waters.” While it is a federal law, it provides for delegation of broad powers to the states, resulting in a state-federal partnership. The Department of Ecology is the state agency primarily responsible for implementing the Clean Water Act in Washington. Specific activities relevant to salmon recovery include:

- Establishing water quality standards, especially those that describe minimum conditions for aquatic life;
- Listing impaired rivers and streams not meeting water quality standards and developing cleanup plans to meet the standards;
- Issuing and enforcing permits to discharge wastewater, stormwater, and industrial pollutants (NPDES);
- Developing strategies and awarding grants to control nonpoint source pollution;
- Issuing water quality certifications for hydropower projects and other projects affecting aquatic resources.

In addition, and specific to the Northwest, is a protocol worked out between the states and

regional offices of affected federal agencies (Environmental Protection Agency, Forest Service, and Bureau of Land Management) for dealing with waters on federal lands that have impaired water quality. It provides that it is the responsibility of the federal land management agencies to protect and restore the quality of public waters under their jurisdiction.

Through these and other Clean Water Act efforts, opportunities exist to work with state and federal agencies when developing watershed plans for salmon habitat conservation.

CONCLUSION

To find out more about the salmon recovery efforts mentioned in this document, refer to the Appendix. Many references and points of contact are listed which can help answer your questions and help you get involved.

To better understand salmon habitat conservation efforts and how these efforts can come together at the watershed level, see the “Roadmap for Salmon Habitat Conservation at the Watershed Level.”

APPENDIX

Resources and Contacts in Salmon Recovery

	Agencies	Programs/Products	Contacts
Federal	National Marine Fisheries Service	<ul style="list-style-type: none"> ESA Listings; Protective Regulations (Section 4(d) rules); Recovery Planning and Technical Recovery Teams 	<ul style="list-style-type: none"> www.nwr.noaa.gov/ (206) 526-6150
	Northwest Power Planning Council	<ul style="list-style-type: none"> Fish and Wildlife Program; Sub-basin Planning Guidance 	<ul style="list-style-type: none"> www.nwcouncil.org/ (503) 222-5161
	U.S. Army Corps of Engineers	<ul style="list-style-type: none"> Programmatic Section 7 consultations for restoration projects 	<ul style="list-style-type: none"> www.nws.usace.army.mil/ers/compliance.html (206) 764-6908
	U.S. Department of the Interior, Bureau of Land Management	<ul style="list-style-type: none"> Clean Water Action Plan and Unified Federal Policy for a Watershed Approach 	<ul style="list-style-type: none"> www.cleanwater.gov/ufp/ (202) 452-7752
	U. S. Environmental Protection Agency	<ul style="list-style-type: none"> Clean Water Act and ESA Integration; Protocols for water cleanup plans 	<ul style="list-style-type: none"> www.epa.gov/region10/ (206) 553-1200
	U.S. Fish and Wildlife Service	<ul style="list-style-type: none"> ESA Listings, Recovery Planning and Habitat Conservation Plans 	<ul style="list-style-type: none"> http://pacific.fws.gov/ (360) 753-9440
	USDA Forest Service	<ul style="list-style-type: none"> Northwest Forest Plan 	<ul style="list-style-type: none"> www.fs.fed.us/r6/ (503) 808-2971
State	Office of Community Development	<ul style="list-style-type: none"> Growth Management 	<ul style="list-style-type: none"> www.ocd.wa.gov/info/lgd/growth/ (360) 725-3000
	Conservation Commission	<ul style="list-style-type: none"> Limiting Factors Analyses 	<ul style="list-style-type: none"> www.conserver.org/salmon/index.php3 (360) 407-6336


	Agencies	Programs/Products	Contacts
State (continued)	Department of Ecology	<ul style="list-style-type: none"> Shoreline Management; Clean Water Act Programs; Nonpoint Source Pollution Control Plan; State Environmental Policy Act; Watershed Planning 	<ul style="list-style-type: none"> www.ecy.wa.gov/programs/sea/shorelan.html www.ecy.wa.gov/programs/wq/wqhome.html www.ecy.wa.gov/programs/sea/sepa (360) 407-6922 www.ecy.wa.gov/watershed/index.html (360) 407-6548
	Washington Department of Fish and Wildlife	<ul style="list-style-type: none"> Pacific Salmon Treaty; Salmonid Stock Inventory; Fishery Management and Evaluation Plans; Hatchery Genetic Management Plans Aquatic Habitat Guidelines; Habitat stewardship and technical assistance Salmon Recovery Planning Grant Program and Regional Recovery Plan Model Volunteer opportunities support 	<ul style="list-style-type: none"> www.wa.gov/wdfw/recovery.htm (360) 902-2651 www.wa.gov/wdfw/hab/ahg/ (360) 902-2566 (360) 902-2598 (360) 902-2713 www.wa.gov/wdfw/volunteer/index.htm (360) 902-2598
	Governor's Salmon Recovery Office	<ul style="list-style-type: none"> Statewide Strategy to Recover Salmon: Extinction Is Not An Option; Guidance on Watershed Assessment for Salmon; Roadmap for Salmon Habitat Conservation at the Watershed Level 	<ul style="list-style-type: none"> www.governor.wa.gov/esa/ (360) 902-2216
	Infrastructure Assistance Coordinating Council	<ul style="list-style-type: none"> Data base of federal and state financial assistance 	<ul style="list-style-type: none"> www.infracfunding.wa.gov

	Agencies	Programs/Products	Contacts
State (continued)	Interagency Committee for Outdoor Recreation	<ul style="list-style-type: none"> Statewide Monitoring Strategy 	<ul style="list-style-type: none"> www.wa.gov/iac/SalmonMonitoring.html (360) 902-2956
	Department of Natural Resources	<ul style="list-style-type: none"> Forest Practices Rules, Forest and Fish Report 	<ul style="list-style-type: none"> www.wa.gov/dnr/htdocs/fp/div/div.html (360) 902-1400
	Puget Sound Water Quality Action Team	<ul style="list-style-type: none"> Puget Sound Water Quality Management Plan (Stormwater habitat and sediment elements) 	<ul style="list-style-type: none"> www.wa.gov/puget_sound/ (360) 407-7300
	Salmon Recovery Funding Board	<ul style="list-style-type: none"> Project Funding Strategies and Guidance 	<ul style="list-style-type: none"> www.wa.gov/iac/salmonmain.html (360) 902-3026
	Washington Department of Transportation	<ul style="list-style-type: none"> Transportation Permit Efficiency and Accountability Uniform Environmental Project Reporting System 	<ul style="list-style-type: none"> www.wsdot.wa.gov/eesc/environmental/ (360) 902-3026 www.ueprs.wa.gov
Regional	Lower Columbia Fish Recovery Board	<ul style="list-style-type: none"> Regional salmon recovery and watershed planning 	<ul style="list-style-type: none"> www.lcfrb.gen.wa.us/ (360) 414-4171
	Puget Sound Salmon Forum	<ul style="list-style-type: none"> Shared Strategy for Puget Sound Salmon Recovery 	<ul style="list-style-type: none"> www.sharedsalmonstrategy.org
	Snake River Salmon Recovery Region Committee	<ul style="list-style-type: none"> Regional coordination of habitat conservation 	<ul style="list-style-type: none"> www.governor.wa.gov/esa Governor's Salmon Recovery Office, Eastern Regional Coordinator (509) 663-9755
	Tri-County Salmon Recovery Initiative	<ul style="list-style-type: none"> Central Puget Sound Endangered Species Act Response 	<ul style="list-style-type: none"> www.salmon.gen.wa.us/ 1-887-725-6669

	Agencies	Programs/Products	Contacts
Regional (continued)	Upper Columbia Salmon Recovery Board	<ul style="list-style-type: none"> Regional salmon recovery and project priorities 	<ul style="list-style-type: none"> www.governor.wa.gov/esa Governor's Salmon Recovery Office, Eastern Regional Coordinator (509) 663-9755
	Columbia River Inter-Tribal Fish Commission	<ul style="list-style-type: none"> Columbia Basin Co-manager Fisheries Plans 	<ul style="list-style-type: none"> www.critfc.org/ (503) 238-0667
	Northwest Indian Fisheries Commission	<ul style="list-style-type: none"> Western Washington Co-Manager Fisheries Plans 	<ul style="list-style-type: none"> www.nwifc.wa.gov/ (360) 438-1180
Watershed/Local	Mid-Columbia Public Utility Districts	<ul style="list-style-type: none"> Habitat Conservation Plan 	<ul style="list-style-type: none"> www.chelanpud.org/ (509) 663-8121
	Regional Fishery Enhancement Groups	<ul style="list-style-type: none"> Salmon recovery projects 	<ul style="list-style-type: none"> www.wa.gov/wdfw/volunter/vol-8.htm
	Salmon Recovery Lead Entities	<ul style="list-style-type: none"> Salmon habitat priorities and projects 	<ul style="list-style-type: none"> www.wa.gov/wdfw/grants/leadlist.htm (360) 902-2409
	Watershed Planning Units	<ul style="list-style-type: none"> Watershed plans 	<ul style="list-style-type: none"> www.ecy.wa.gov/watershed/index.html (360) 407-6548



**Persons needing this information
in an alternate format may
contact the Governor's Salmon
Recovery Office, PO Box 43135
Olympia WA 98504-3135**

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